

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 09/889,624A  
Source: ITIN/6  
Date Processed by STIC: 7-27-05

***ENTERED***



IFW16

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/889,624A

DATE: 07/27/2005

TIME: 12:37:58

Input Set : A:\17541-033US1.TXT

Output Set: N:\CRF4\07272005\I889624A.raw

4 <110> APPLICANT: Kotwal, Girish J.  
 5 Daly, James  
 7 <120> TITLE OF INVENTION: Application of a Viral Complement  
 8 Inhibitory Protein in the Treatment and Diagnosis of  
 9 Alzheimer's Disease  
 11 <130> FILE REFERENCE: 17541/033US1  
 13 <140> CURRENT APPLICATION NUMBER: 09/889,624A  
 14 <141> CURRENT FILING DATE: 2001-11-07  
 16 <150> PRIOR APPLICATION NUMBER: PCT/US00/01115  
 17 <151> PRIOR FILING DATE: 2000-01-19  
 19 <150> PRIOR APPLICATION NUMBER: 60/116,328  
 20 <151> PRIOR FILING DATE: 1999-01-19  
 22 <160> NUMBER OF SEQ ID NOS: 12  
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 26 <210> SEQ ID NO: 1  
 27 <211> LENGTH: 263  
 28 <212> TYPE: PRT  
 29 <213> ORGANISM: Vaccinia Virus  
 W--> 30 <400> SEQUENCE: 1  
 31 Met Lys Val Glu Ser Val Thr Phe Leu Thr Leu Leu Gly Ile Gly Cys  
 32 1 5 10 15  
 33 Val Leu Ser Cys Cys Thr Ile Pro Ser Arg Pro Ile Asn Met Lys Phe  
 34 20 25 30  
 35 Lys Asn Ser Val Glu Thr Asp Ala Asn Ala Asn Tyr Asn Ile Gly Asp  
 36 35 40 45  
 37 Thr Ile Glu Tyr Leu Cys Leu Pro Gly Tyr Arg Lys Gln Lys Met Gly  
 38 50 55 60  
 39 Pro Ile Tyr Ala Lys Cys Thr Gly Thr Gly Trp Thr Leu Phe Asn Gln  
 40 65 70 75 80  
 41 Cys Ile Lys Arg Arg Cys Pro Ser Pro Arg Asp Ile Asp Asn Gly Gln  
 42 85 90 95  
 43 Leu Asp Ile Gly Gly Val Asp Phe Gly Ser Ser Ile Thr Tyr Ser Cys  
 44 100 105 110  
 45 Asn Ser Gly Tyr His Leu Ile Gly Glu Ser Lys Ser Tyr Cys Glu Leu  
 46 115 120 125  
 47 Gly Ser Thr Gly Ser Met Val Trp Asn Pro Glu Ala Pro Ile Cys Glu  
 48 130 135 140  
 49 Ser Val Lys Cys Gln Ser Pro Pro Ser Ile Ser Asn Gly Arg His Asn  
 50 145 150 155 160  
 51 Gly Tyr Glu Asp Phe Tyr Thr Asp Gly Ser Val Val Thr Tyr Ser Cys  
 52 165 170 175  
 53 Asn Ser Gly Tyr Ser Leu Ile Gly Asn Ser Gly Val Leu Cys Ser Gly  
 54 180 185 190

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55 Gly Glu Trp Ser Asp Pro Pro Thr Cys Gln Ile Val Lys Cys Pro His  
 56 195 200 205  
 57 Pro Thr Ile Ser Asn Gly Tyr Leu Ser Ser Gly Phe Lys Arg Ser Tyr  
 58 210 215 220  
 59 Ser Tyr Asn Asp Asn Val Asp Phe Lys Cys Lys Tyr Gly Tyr Lys Leu  
 60 225 230 235 240  
 61 Ser Gly Ser Ser Ser Thr Cys Ser Pro Gly Asn Thr Trp Lys Pro  
 62 245 250 255  
 63 Glu Leu Pro Lys Cys Val Arg  
 64 260  
 67 <210> SEQ ID NO: 2  
 68 <211> LENGTH: 840  
 69 <212> TYPE: DNA  
 70 <213> ORGANISM: Vaccinia Virus

W--&gt; 71 &lt;400&gt; SEQUENCE: 2

72 ttttttattat ttgtacgatg tccaggataaa catttttacg gataaataaaa tatgaaggtg 60  
 73 gagagcgtga cgttcctgac attgttggga ataggatgcg ttctatcatg ctgtactatt 120  
 74 ccgtcacgac ccattaatat gaaatttaag aatagtgtgg agactgatgc taatgcta 180  
 75 tacaaacatag gagacactat agaataatcta tgtctacctg gatacagaaa gcaaaaaatg 240  
 76 ggacctatata atgcttaaatg tacaggtact ggatggacac tctttaatca atgtattaaa 300  
 77 cggagatgcc catgcctcg agatatcgat aatggccaac ttgatattgg tggagtagac 360  
 78 tttggctcta gtataaacta ctcttgcata agcggatatac atttgatcg 420  
 79 tcgtattgtg aattaggatc tactggatct atggtatgga atcccggggc acctatttg 480  
 80 gaatctgtta aatgccaatc ccctccatct atatccaacg gaagacataa cggatacgg 540  
 81 gattttata ccgatgggag cgttgcatact tatagttgca atagttggata ttcgttggatt 600  
 82 gttaactctg gtgtcctgtg ttcaggagga gaatgtccg atccacccac gtgtcagatt 660  
 83 gttaaatgtc cacatccatc aatatcaaac ggataactgt cttagccccgt taaaagatca 720  
 84 tactcataca acgacaatgt agactttaaag tgcaagtgatg gatataaact atctggttcc 780  
 85 tcatacatcta ctgcctctcc agaaaataca tggaaacccgg aacttccaaa atgtgtacgc 840  
 88 <210> SEQ ID NO: 3  
 89 <211> LENGTH: 1205  
 90 <212> TYPE: DNA  
 91 <213> ORGANISM: Artificial Sequence

W--&gt; 92 &lt;220&gt; FEATURE:

93 <223> OTHER INFORMATION: C-terminus (nucleotides 1786-3207) of amyloid  
 94 precursor protein (APP)

W--&gt; 95 &lt;400&gt; SEQUENCE: 3

96 taaaaaacgt ctaggcccccc cgaaccacgg ggacgtgggtt ttcctttgaa aaacacgata 60  
 97 ataccatgga tgcagaattc cgacatgact caggatatga agttcatcat caaaaattgg 120  
 98 tggctttgc agaagatgtg gttcaaaaca aagggtcaat cattggactc atggggcg 180  
 99 gtgtgtcat agcgacagtg atcgtcatca ccttggat gctgaagaag aaacagtaca 240  
 100 catccattca tcatgtgtg gtggagggtg acgcccgtt caccggcagag gagcgccacc 300  
 101 tggccaaatgc gacggcggaaac ggctacgaaa atccaaaccta caagttctt gagcagatgc 360  
 102 agaactagac cccggccaca gcagccctcg aagttggaca gcaaaaccat tgcttcacta 420  
 103 cccatcggtg tccattata gaataatgtg ggaagaaaaca aacccgtttt atgatttact 480  
 104 cattatcgcc ttttgcacgc tggctgttaa cacaagtata tgcctgaact tgaattaatc 540  
 105 cacacatcg taatgtattc tatctcttt tacatggatg tctctataact acattattaa 600  
 106 tgggtttgt gtactgtaaa gaatttagct gtatcaaact agtgcatgaa tagattctct 660  
 107 cctgattatt tatcatacg ccccttagcc agttgtatata tattcttgc gtttgtgacc 720

**RAW SEQUENCE LISTING** DATE: 07/27/2005  
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**Input Set : A:\17541-033US1.TXT**  
**Output Set: N:\CRF4\07272005\I889624A.raw**

108 caattaagtc ctactttaca tatgcttaa gaatcgatgg gggatgcttc atgtgaacgt 780  
109 gggagttcag ctgcttctc tgcctaagta ttcccttcct gatcaactatg cattttaaag 840  
110 ttaaacattt ttaagtattt cagatgcattt agagagattt ttttccatg actgcatttt 900  
111 actgtacaga ttgctgcttc tgctatattt gtgatatagg aattaagagg atacacacgt 960  
112 ttgtttcttc gtgcctgttt tatgtgcaca cattaggcat tgagacttca agctttctt 1020  
113 ttttgtcca cgtatcttg gtcatttgcattt aaagaaaaga atccctgttc attgtaagca 1080  
114 cttttacggg gcgggtgggg aggggtgctc tgctggcga cgatccgct gctaacaagg 1140  
115 cccgaaagga agctgagttg gctgctgcca ccgctgagca ataactagca taacccttg 1200  
116 gggcc 1205  
118 <210> SEQ ID NO: 4  
119 <211> LENGTH: 100  
120 <212> TYPE: PRT  
121 <213> ORGANISM: Artificial Sequence  
W--> 122 <220> FEATURE:  
123 <223> OTHER INFORMATION: C-terminus (nucleotides 1786-3207) of amyloid  
124 precursor protein (APP)  
W--> 125 <400> SEQUENCE: 4  
126 Met Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln  
127 1 5 10 15  
128 Lys Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Ile  
129 20 25 30  
130 Ile Gly Leu Met Val Gly Gly Val Val Ile Ala Thr Val Ile Val Ile  
131 35 40 45  
132 Thr Leu Val Met Leu Lys Lys Gln Tyr Thr Ser Ile His His Gly  
133 50 55 60  
134 Val Val Glu Val Asp Ala Ala Val Thr Pro Glu Glu Arg His Leu Ser  
135 65 70 75 80  
136 Lys Met Gln Gln Asn Gly Tyr Glu Asn Pro Thr Tyr Lys Phe Phe Glu  
137 85 90 95  
138 Gln Met Gln Asn  
139 100  
142 <210> SEQ ID NO: 5  
143 <211> LENGTH: 244  
144 <212> TYPE: PRT  
145 <213> ORGANISM: Vaccinia Virus, Copenhagen Strain  
W--> 146 <400> SEQUENCE: 5  
147 Cys Cys Thr Ile Pro Ser Arg Pro Ile Asn Met Lys Phe Lys Asn Ser  
148 1 5 10 15  
149 Val Glu Thr Asp Ala Asn Ala Asn Tyr Asn Ile Gly Asp Thr Ile Glu  
150 20 25 30  
151 Tyr Leu Cys Leu Pro Gly Tyr Arg Lys Gln Lys Met Gly Pro Ile Tyr  
152 35 40 45  
153 Ala Lys Cys Thr Gly Thr Gly Trp Thr Leu Phe Asn Gln Cys Ile Lys  
154 50 55 60  
155 Arg Arg Cys Pro Ser Pro Arg Asp Ile Asp Asn Gly Gln Leu Asp Ile  
156 65 70 75 80  
157 Gly Gly Val Asp Phe Gly Ser Ser Ile Thr Tyr Ser Cys Asn Ser Gly  
158 85 90 95  
159 Tyr His Leu Ile Gly Glu Ser Lys Ser Tyr Cys Glu Leu Gly Ser Thr

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 PATENT APPLICATION: US/09/889,624A TIME: 12:37:58

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 Output Set: N:\CRF4\07272005\I889624A.raw

160	100	105	110
161	Gly Ser Met Val Trp Asn Pro Glu Ala Pro Ile Cys Glu Ser Val Lys		
162	115	120	125
163	Cys Gln Ser Pro Pro Ser Ile Ser Asn Gly Arg His Asn Gly Tyr Glu		
164	130	135	140
165	Asp Phe Tyr Thr Asp Gly Ser Val Val Thr Tyr Ser Cys Asn Ser Gly		
166	145	150	155
167	Tyr Ser Leu Ile Gly Asn Ser Gly Val Leu Cys Ser Gly Gly Glu Trp		
168	165	170	175
169	Ser Asp Pro Pro Thr Cys Gln Ile Val Lys Cys Pro His Pro Thr Ile		
170	180	185	190
171	Ser Asn Gly Tyr Leu Ser Ser Gly Phe Lys Arg Ser Tyr Ser Tyr Asn		
172	195	200	205
173	Asp Asn Val Asp Phe Lys Cys Lys Tyr Gly Tyr Lys Leu Ser Gly Ser		
174	210	215	220
175	Ser Ser Ser Thr Cys Ser Pro Gly Asn Thr Trp Lys Pro Glu Leu Pro		
176	225	230	235
177	Lys Cys Val Arg		
181	<210> SEQ ID NO: 6		
182	<211> LENGTH: 244		
183	<212> TYPE: PRT		
184	<213> ORGANISM: Vaccinia Virus, Western Reserve Strain		
W-->	185 <400> SEQUENCE: 6		
186	Cys Cys Thr Ile Pro Ser Arg Pro Ile Asn Met Lys Phe Lys Asn Ser		
187	1	5	10
188	Val Glu Thr Asp Ala Asn Ala Asn Tyr Asn Ile Gly Asp Thr Ile Glu		
189	20	25	30
190	Tyr Leu Cys Leu Pro Gly Tyr Arg Lys Gln Lys Met Gly Pro Ile Tyr		
191	35	40	45
192	Ala Lys Cys Thr Gly Thr Gly Trp Thr Leu Phe Asn Gln Cys Ile Lys		
193	50	55	60
194	Arg Arg Cys Pro Ser Pro Arg Asp Ile Asp Asn Gly Gln Leu Asp Ile		
195	65	70	75
196	Gly Gly Val Asp Phe Gly Ser Ser Ile Thr Tyr Ser Cys Asn Ser Gly		
197	85	90	95
198	Tyr His Leu Ile Gly Glu Ser Lys Ser Tyr Cys Glu Leu Gly Ser Thr		
199	100	105	110
200	Gly Ser Met Val Trp Asn Pro Glu Ala Pro Ile Cys Glu Ser Val Lys		
201	115	120	125
202	Cys Gln Ser Pro Pro Ser Ile Ser Asn Gly Arg His Asn Gly Tyr Glu		
203	130	135	140
204	Asp Phe Tyr Thr Asp Gly Ser Val Val Thr Tyr Ser Cys Asn Ser Gly		
205	145	150	155
206	Tyr Ser Leu Ile Gly Asn Ser Gly Val Leu Cys Ser Gly Gly Glu Trp		
207	165	170	175
208	Ser Asp Pro Pro Thr Cys Gln Ile Val Lys Cys Pro His Pro Thr Ile		
209	180	185	190
210	Ser Asn Gly Tyr Leu Ser Ser Gly Phe Lys Arg Ser Tyr Ser Tyr Asn		
211	195	200	205

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**Input Set : A:\17541-033US1.TXT**  
**Output Set: N:\CRF4\07272005\I889624A.raw**

212 Asp Asn Val Asp Phe Lys Cys Lys Tyr Gly Tyr Lys Leu Ser Gly Ser  
213 210 215 220  
214 Ser Ser Ser Thr Cys Ser Pro Gly Asn Thr Trp Lys Pro Glu Leu Pro  
215 225 230 235 240  
216 Lys Cys Val Arg  
220 <210> SEQ ID NO: 7  
221 <211> LENGTH: 240  
222 <212> TYPE: PRT  
223 <213> ORGANISM: Cowpox Virus, Russian Isolate From Human Patient  
W--> 224 <400> **SEQUENCE: 7**  
225 Cys Cys Pro Ile Pro Ser Arg Pro Ile Thr Met Lys Phe Lys Gly Thr  
226 1 5 10 15  
227 Val Asp Ser His Tyr Asn Ile Gly Asp Thr Ile Glu Tyr Leu Cys Leu  
228 20 25 30  
229 Pro Gly Tyr Arg Lys Gln Lys Met Gly Pro Ile Tyr Ala Lys Cys Thr  
230 35 40 45  
231 Gly Thr Gly Trp Thr Leu Phe Asn Gln Cys Ile Lys Arg Arg Cys Pro  
232 50 55 60  
233 Ser Pro Arg Asp Ile Asp Asn Gly Gln Leu Asp Ile Gly Gly Val Asp  
234 65 70 75 80  
235 Phe Gly Ser Ser Ile Thr Tyr Ser Cys Asn Ser Gly Tyr His Leu Ile  
236 85 90 95  
237 Gly Glu Ser Lys Ser Tyr Cys Glu Leu Gly Ser Thr Gly Ser Met Val  
238 100 105 110  
239 Trp Asn Pro Glu Ala Pro Ile Cys Glu Ser Val Lys Cys Gln Ser Pro  
240 115 120 125  
241 Pro Ser Ile Ser Asn Gly Arg His Asn Gly Tyr Glu Asp Phe Tyr Thr  
242 130 135 140  
243 Asp Gly Ser Val Val Thr Tyr Ser Cys Asn Ser Gly Tyr Ser Leu Ile  
244 145 150 155 160  
245 Gly Asn Ser Gly Val Leu Cys Ser Gly Gly Glu Trp Ser Asp Pro Pro  
246 165 170 175  
247 Thr Cys Gln Ile Val Lys Cys Pro His Pro Thr Ile Ser Asn Gly Tyr  
248 180 185 190  
249 Leu Ser Ser Gly Phe Lys Arg Ser Tyr Ser Tyr Asn Asp Asn Val Asp  
250 195 200 205  
251 Phe Lys Cys Lys Tyr Gly Tyr Lys Leu Ser Gly Ser Ser Ser Ser Thr  
252 210 215 220  
253 Cys Ser Pro Gly Asn Thr Trp Gln Pro Glu Leu Pro Lys Cys Val Arg  
254 225 230 235 240  
257 <210> SEQ ID NO: 8  
258 <211> LENGTH: 244  
259 <212> TYPE: PRT  
260 <213> ORGANISM: Cowpox Virus, Brighton Strain  
W--> 261 <400> **SEQUENCE: 8**  
262 Cys Cys Thr Ile Pro Ser Arg Pro Ile Asn Met Lys Phe Lys Asn Ser  
263 1 5 10 15  
264 Val Gly Thr Asp Ala Asn Ala Asn Tyr Asn Ile Gly Asp Thr Ile Glu  
265 20 25 30

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/889,624A

DATE: 07/27/2005

TIME: 12:37:59

Input Set : A:\17541-033US1.TXT

Output Set: N:\CRF4\07272005\I889624A.raw

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L:71 M:283 W: Missing Blank Line separator, <400> field identifier  
L:92 M:283 W: Missing Blank Line separator, <220> field identifier  
L:95 M:283 W: Missing Blank Line separator, <400> field identifier  
L:122 M:283 W: Missing Blank Line separator, <220> field identifier  
L:125 M:283 W: Missing Blank Line separator, <400> field identifier  
L:146 M:283 W: Missing Blank Line separator, <400> field identifier  
L:185 M:283 W: Missing Blank Line separator, <400> field identifier  
L:224 M:283 W: Missing Blank Line separator, <400> field identifier  
L:261 M:283 W: Missing Blank Line separator, <400> field identifier  
L:300 M:283 W: Missing Blank Line separator, <400> field identifier  
L:339 M:283 W: Missing Blank Line separator, <400> field identifier  
L:378 M:283 W: Missing Blank Line separator, <400> field identifier  
L:417 M:283 W: Missing Blank Line separator, <400> field identifier